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Office of Secretary

The Development of Operational,
Technical, and Spectrum
Requirements for Meeting
Federal, State and Local Public
Safety Agency Communication
Requirements Through the
Year 2010

WT Docket No. 96-86

COMMENTS OF NEXTEL COMMUNICATIONS, INC.

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**Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554**

In the Matter of)	
)	
The Development of Operational,)	WT Docket No. 96-86
Technical, and Spectrum)	
Requirements for Meeting)	
Federal, State and Local Public)	
Safety Agency Communication)	
Requirements Through the)	
Year 2010)	

COMMENTS OF NEXTEL COMMUNICATIONS, INC.

I. INTRODUCTION

Pursuant to Section 1.415 of the Rules of the Federal Communications Commission ("Commission"), Nextel Communications, Inc. ("Nextel") respectfully submits these Comments on the Commission's Notice of Proposed Rule Making ("NPRM") in the above-captioned docket.^{1/}

The NPRM seeks comments on meeting the "present deficiencies in public safety wireless communications as well as its expanding spectrum needs."^{2/} The deficiencies, which the Commission seeks to address, include "lack of interoperability, minimal access to emerging technologies, limited service feature options, less than optimal transmission and reception quality, and scarce available spectrum."^{3/}

Although the NPRM seeks comment on several different areas of public safety communications capabilities, Nextel is limiting its

^{1/} Notice of Proposed Rule Making, 11 FCC Rcd 12460 (1996).

^{2/} NPRM at para. 1.

^{3/} *Id.*

Comments to the ways in which Nextel's wide-area Specialized Mobile Radio ("SMR") services, which employ Motorola's iDEN digital technology, can be used to help meet the needs of the public safety community. Nextel agrees with the Commission that "the Nation's public safety agencies require modern and innovative communications at high levels of efficiency and effectiveness."^{4/} Nextel believes that its iDEN service can provide the "modern and innovative communications" needed by the public safety community and thereby complement existing public safety wireless communications capabilities. Therefore, Nextel provides the following description of its services and their potential use by public safety agencies.

II. DISCUSSION

A. Background On Nextel's Services

Traditional SMR Services. Nextel is the largest provider of SMR and wide-area SMR services in the Nation. SMR services, also referred to as "traditional SMR services," were established by the Commission in the mid-1970's when the FCC allocated a portion of the 800 MHz spectrum for use in private land mobile communications. Primarily "dispatch communications," these traditional analog services are commonly employed by companies with fleets of vehicles operating throughout a local area, e.g., a plumbing company, a messenger service, or the local gas or electric company, and they typically permit two-way mobile communications between a dispatcher

^{4/} *Id.*

and one or more mobile/portable units, which enables groups of users to communicate simultaneously.

Traditional SMR systems are configured using a single high-tower, high-power station that provides communications coverage throughout a limited geographic local service area. Users can communicate with other members of their talk groups, and in some cases, can access the public switched telephone network through limited interconnection capabilities.

Wide-Area SMR Services. Wide-area SMR services, also known as "Enhanced SMR" or "ESMR," are digital telecommunications services that offer customers an integrated package of wireless services, including not only the dispatch services described above, but also interconnected mobile telephone (cellular), alpha-numeric paging, and data capabilities. Users can employ the mobile telephone service to access anyone connected to the Public Switched Telephone Network -- just like a cellular or Personal Communications Service ("PCS") -- or they can instantly communicate via the dispatch service with one or more subscribers programmed into their "mobile work groups." This latter capability provides users "instant conferencing" by enabling communications among widespread mobile work forces throughout a major urban or suburban area. Designed and constructed similarly to a cellular or PCS system, the wide-area SMR system employs a multiple low-power, low-tower configuration that enables telephone call hand-off as a user moves throughout the wide-area SMR network. Users of Nextel's wide-area SMR systems, therefore, have access to cellular telephone service,

instant conferencing, paging and voice mail all in the same handset.

Nextel's wide-area SMR services incorporate digital voice encoding using Time Division Multiple Access ("TDMA"). Although Nextel currently is not offering encryption to ensure secure communications, its TDMA digital system offers the highest level of security available in commercial communications today through the use of encoding. While encryption is a process generally limited to analog systems, encoding performs the analogous function to encryption while also heightening the user's protection against fraud. Additionally, Nextel's wide-area SMR services make more efficient use of the spectrum than analog cellular or SMR services, enabling Nextel to offer much greater customer capacity than analog SMR systems.

B. Application of Nextel's Service For Public Safety Uses

In addition to the one-to-many "instant conferencing" capability, Nextel's iDEN technology specifically supports direct unit-to-unit communications, which permits instant one-to-one private communications between two mobile/portable Nextel units. This, in addition to the service's efficiency and confidentiality, is particularly well-suited for many public safety uses -- particularly communications among different public safety agencies. In fact, Nextel already has been approached by many public safety agencies expressing interest in using its iDEN product.

A prime example of Nextel's wide-area SMR support for public safety interagency communications is the response to the Oklahoma

City bombing. The Red Cross, emergency services personnel, and other public safety officials used wide-area SMR services to provide critical interagency communications among these different local, state and federal public safety agencies. This interagency use of Nextel's wide-area SMR services specifically addresses the Commission's concern that local, state, regional and national public safety agencies cannot currently communicate with one another, thereby meeting what the Commission defines as "one of the most critical deficiencies in today's public safety communications."5/

Emergency service providers can establish "talk groups" within and among the varying agencies. In doing so, emergency personnel throughout the various organizations can instantly communicate with any or all of the emergency personnel in their respective "talk groups." The iDEN technology employed in Nextel's wide-area SMR services also is capable of providing emergency alert/ID and priority override to ensure that critical "talk group" communications are completed.

Nextel currently is implementing its wide-area SMR services throughout the country, with coverage already encompassing nearly 50% of the population of the U.S. Existing wide-area SMR networks cover large geographic areas, including most of the country's largest metropolitan areas. Thus, the scope of the service is not limited; rather, it can be employed on a wide-area basis in many different areas of the country as well as Canada and Mexico.

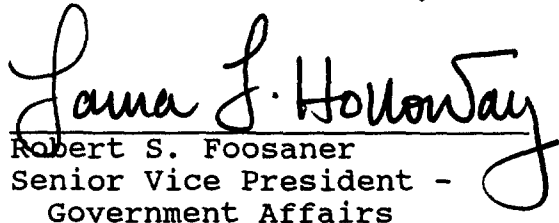
5/ See NPRM at para. 22.

III. CONCLUSION

Nextel supports the Commission's efforts to resolve the present deficiencies in public safety wireless telecommunications. The Commission has a number of options to consider in meeting the needs of the public safety community, including commercial service applications. Herein, Nextel has provided the Commission one example of how commercial wireless service providers can meet the needs of the public safety industry. By employing such commercial services, public safety users will obtain access to emerging technologies and potentially increase their interoperability capabilities.

Respectfully submitted,

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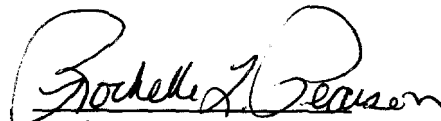
Dated: October 21, 1996

CERTIFICATE OF SERVICE

I, Rochelle L. Pearson, hereby certify that on this 21st day of October 1996,
caused a copy of the attached Comments of Nextel Communications, Inc. to be served by
hand delivery to the following:

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